

crispprd 1.0



## Abstract

**Grant Number:** 5F31NR007461-04

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**PI Title:**

**Project Title:** INTERVENTION TO INHIBIT SURGERY INDUCED METASTASIS

**Abstract:** *The goal of this study is to evaluate the effectiveness of an intervention in relieving postoperative pain and ameliorating surgery-enhanced metastasis. Recent search in animal models indicates that pain may have a role in the post-surgical increase in metastasis that has been observed in previous experimental and clinical studies, and this effected can be alleviated with morphine. Furthermore, there is evidence that sex and estrous cycle phase may affect immunity and pain response, thus affecting metastasis. This investigation will examine not only the outcome of the intervention, but also the processes and extraneous factors that mediate the observed effect. A 3x2x2 factorial design will be utilized to assess the impact of surgery, the proposed intervention, and sex and estrous cycle on measures of stress, immune response, and metastasis. The results of this study have strong implications for health care professions, and specifically for nurses. Since surgery continues to be a major treatment modality for cancer, and pain is typically the most predominant postoperative problem, effective pain management should be primary objective for nurses caring for these patients. The scarcity of research on the physiological outcomes of pain makes it difficult for nurses to make knowledge evaluations of the risk-benefit ration of a given intervention. Findings from this study may contribute to a better understanding of the role of pain in surgery-enhanced metastasis and provide insights into appropriate interventions.*

### **Thesaurus Terms:**

*cancer pain, metastasis, neoplasm /cancer, neoplasm /cancer surgery, nonhuman therapy evaluation*

*estrus, gender difference, immunosuppression, morphine, outcomes research, pain*

*threshold, physiologic stressor, psychopharmacology  
behavioral /social science research tag, laboratory rat*

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